

*REPORT OF THE MEETINGS OF THE INTERNATIONAL RE-
SEARCH COUNCIL AND OF THE AFFILIATED UNIONS
HELD AT BRUSSELS, JULY 18-28, 1919*

Presented to the Division of Foreign Relations, National Research Council

By W. W. CAMPBELL, *Chairman*, American Delegation to the
International Research Council

In response to the call of the Executive Committee of the International Research Council, the third conference of representatives of the sciences in the allied and associated nations was held in Brussels on July 18 to July 28, inclusive. The purpose of the conference was to complete the organization of the International Research Council, and to form international unions, affiliated with the Council, representing the individual sciences. Duly authorized delegates from the following countries took part in the conference: Belgium, Canada, France, Great Britain and Ireland, Italy, Japan, New Zealand, Poland, Roumania, Serbia, and the United States of America. The total number of delegates from the eleven countries was slightly over two hundred. The American delegation, formed under the auspices of the National Research Council, numbered twenty-one, and was as follows:

International Research Council

W. W. CAMPBELL, *Chairman*, Chairman of American Delegation to International Astronomical Union.

C. E. MENDENHALL, Scientific Attaché at London, also representing Physics.

H. S. WASHINGTON, Scientific Attaché at Rome, also representing Geology.

MAJOR WM. BOWIE, Chairman of American Delegation to International Geophysical Union.

E. W. WASHBURN, Chairman of American Delegation to International Chemical Union.

W. S. THAYER, Representing Medicine.

JOHN C. PENNY, Representing Patents.

MAJOR DOUGLAS W. JOHNSON, Representing Geography.

Astronomical Union

W. W. CAMPBELL, *Chairman*

W. S. ADAMS

BENJAMIN BOSS

MAJOR PHILIP FOX

S. A. MITCHELL

FRANK SCHLESINGER

C. E. ST. JOHN

F. H. SEARES

JOEL STEBBINS

Geophysical Union

MAJOR WM. BOWIE, *Chairman*

L. A. BAUER

G. W. LITTLEHALES

ADMIRAL EDWARD SIMPSON

Chemical Union

E. W. WASHBURN, *Chairman*

F. G. COTTRELL

CHAS. L. PARSONS

H. S. WASHINGTON

Medicine

W. S. THAYER, *Chairman*

Geology

H. S. WASHINGTON, *Chairman*

Geography

MAJOR DOUGLAS W. JOHNSON, *Chairman*

Physics

C. E. MENDENHALL, *Chairman*

Patents

JOHN C. PENNY, *Chairman*

All sessions of the Council and of the affiliated unions and all of the related committee meetings were held in the splendid Palais des Académies, under the patronage of the Royal Belgian Academy of Sciences. The Palais, spacious in plan and sumptuous in appointments, occupies an isolated and commanding position *vis à vis* the Palais-Royal and the great Parc of the city.

Illness prevented the attendance of Professor Picard, Chairman of the Executive Committee of the Council. This position was filled for the occasion by Professor Lacroix, who presided admirably over the sessions of the Council and of the Executive Committee. Professor Hale, member of the Committee, was unable to attend the Conference, and Mr. Campbell served in his stead. Professor Schuster, Secretary of the Royal Society and General Secretary of the Executive Committee, served ably as the secretary of the Council. Other members of the Executive Committee were M. Lecoq, Director of the Royal Observatory of Belgium, and Professor Volterra, of the University of Rome.

The opening session of the Conference was honored by the presence of His Majesty, Albert, King of the Belgians, who occupied the royal box in the great assembly room. He had previously received the members of the Executive Committee in an adjoining room. An address of congratulation to the King was read by M. Hermignie, Belgian Minister of Sciences and Arts, and a cordial welcome to the delegates was pronounced by the Vice-President of the Class of Sciences of the Royal Belgian Academy. Upon the motion of the President of the Belgian Academy, the Executive Committee, as described above, served as the administrative Bureau of the Research Council throughout the Conference.

The several plenary sessions of the Research Council were devoted largely to the formulation of a Constitution which should define the purposes and govern the proceedings of the Council. The Executive Committee in special session at Paris in May had drawn up a proposed constitution, and this, in printed form, served as the basis for our deliberations. The modifications were accomplished by general consent, or by oral ballot in which each country had one vote, and final adoptions rested also upon this form of ballot.

The Conference was able to complete the structure of the Constitution, to the satisfaction of all the delegations, except in one particular: that

relating to the number of members composing the Executive Committee of the Council, and certain possible conditions governing their choice. For example, many delegates were apparently in favor of the proposal that each affiliated union should have one representative on the Executive Committee of the Council, either *ex-officio* or by the choice of the union. There was not time to consider the probable effects of the various proposals, and the Committee was fixed temporarily at five members, with the understanding that this provision should be subject to discussion and modification at the next general meeting of the Council, in 1922.

The Constitution as adopted was in French text, and it was formally agreed that interpretations of its provisions should be based upon that text. The Constitution follows herewith, the text being that issued from the office of the General Secretary of the I. R. C.

INTERNATIONAL RESEARCH COUNCIL

Statutes of Convention

I—OBJECTS OF INTERNATIONAL COUNCIL AND CONDITIONS OF ADMISSION

1. The purpose of the International Research Council is:

(a) To coördinate international efforts in the different branches of science and its applications.

(b) To initiate the formation of international Associations or Unions deemed to be useful to the progress of science in accordance with Article I of the resolutions adopted at the Conference of London, October, 1918.¹

(c) To direct international scientific activity in subjects which do not fall within the purview of any existing international associations.

(d) To enter through the proper channels into relation with the Governments of the countries adhering to the International Research Council in order to promote investigations falling within the competence of the Council.

II—DOMICILE

2. The legal domicile of the International Research Council shall be at Brussels where the General Assemblies will be held and the archives kept.

Donations and legacies will be received and administered according to Belgian law.

III—CONDITIONS OF ADMISSION

3. The countries in the following list may participate in the foundation of the International Research Council, and of any scientific Union connected with it, or join such Union at a subsequent period:

Belgium, Brazil, United States, France, the United Kingdom of Great Britain and Ireland, Australia, Canada, New Zealand, South Africa, Greece, Italy, Japan, Poland, Portugal, Roumania, Serbia.

¹ "That it is desirable that the nations at war with the Central Powers withdraw from the existing conventions relating to International Scientific Associations in accordance with the Statutes or Regulations of such Conventions, respectively, as soon as circumstances permit; and

"That new associations, deemed to be useful to the progress of science and its applications, be established without delay by the nations at war with the Central Powers with the eventual coöperation of neutral nations."

After a Union¹ has been formed, nations not included in the above list, but fulfilling the conditions of Article 1 of the resolutions of the Conference of London, may be admitted, either at their own request, or on the proposal of one of the countries already belonging to the Union.

Such requests or proposals shall be submitted to a vote of the Union concerned. A favorable majority of not less than three-quarters of the countries already forming part of the Union shall be required for admission.

4. A country may join the International Research Council, or any Union connected with it, either through its principal Academy, its National Research Council, some other national institution or association of institutions, or through its Government.

5. The Statutes of the Unions formed by the International Research Council require the approval of this Council.

IV—ADMINISTRATION OF THE COUNCIL

6. The work of the Council is directed by the General Assembly, consisting of delegates appointed by the adhering countries.

7. There shall be an Executive Committee, consisting of five members elected by the General Assembly, which shall direct the affairs of the Council in the interval between the meetings of the General Assembly in accordance with the resolutions adopted at the previous meeting of the Assembly.²

8. The Bureau of the Executive Committee shall consist of a President, two Vice-Presidents, and a General Secretary, who shall be elected by the General Assembly, and hold office until the end of the second General Assembly following that of their election, except that the President and one of the two Vice-Presidents shall retire at the end of the first General Assembly following that of their election. Retiring members are re-eligible.

9. The General Secretary shall be responsible for the conduct of the correspondence, the administration of funds, and the preparation and distribution of the publications authorized by the General Assembly.

10. The Executive Committee may fill up by co-optation any vacancy occurring in its body in the interval between two General Assemblies. Any person so appointed shall hold office until the next General Assembly, which shall then proceed to an election. The member thus elected shall complete the term of office of the person whose place he takes.

V—POWERS AND FUNCTIONS OF THE EXECUTIVE COMMITTEE

11. The Executive Committee may in the interval between two meetings of the General Assembly submit proposals to the organizations adhering to the Council for their approval. It shall do so when requested by one-third of the bodies constituting the Council.

12. The Executive Committee may nominate special Committees for the discussion of any question falling within the purview of the International Research Council. The members of such Committees need not necessarily have been delegates at one of the General Assemblies. These special Committees may themselves co-opt other members by a majority of two-thirds.

13. The Executive Committee shall present an Annual Report to the organization in each country which has joined the Council. Such reports shall also be sent to each delegate who was present at the previous meeting of the General Assembly.

¹ The term "Union" in this and subsequent paragraphs is intended to include "Association."

² Articles 7 and 8 are subject to revision. The Executive Committee elected in 1919 will vacate office at the next General Assembly.

VI—MEETINGS OF THE GENERAL ASSEMBLY

14. An ordinary meeting of the General Assembly shall, as a rule, take place once every three years. The date of the meeting, unless determined by the General Assembly at its previous meeting, shall be fixed by the Executive Committee, and communicated to the organizations adhering to the International Research Council at least four months beforehand, together with the agenda of business to be transacted.

15. For special reasons the President may, with the consent of the Executive Committee, summon an extraordinary meeting of the General Assembly. He is obliged to do so at the request of one-third of the adhering countries.

16. The delegates of the different countries taking part in the meetings of the General Assembly shall be appointed by the organizations adhering to the International Research Council.

17. The President of the Executive Committee may invite to a meeting of the General Assembly scientific men who are not delegates, provided that they are subjects of one of the adhering countries. Such invited guests may take part in the discussions, but shall have no power of voting. Members of any of the Special Committees mentioned in Article 12 shall have the right to attend those meetings of the General Assembly which deal with the subjects referred to the Committee.

18. The agenda of business to be transacted at a meeting shall be determined by the Executive Committee, and communicated to the adhering organizations at least four months before the first day of the meeting. No question which has not been placed on the agenda shall be discussed, unless a proposal to that effect be approved by not less than one-half of the total votes of the countries represented at the General Assembly.

VII—FINANCE AND VOTING POWER

19. The Executive Committee shall prepare an estimate of the budget for each of the years intervening between two General Assemblies. A Finance Committee, nominated for the purpose by the General Assembly, shall examine this estimate, together with the accounts for the preceding years. This Committee shall submit separate reports on the two questions to the General Assembly which, having considered these reports, shall fix the unit of contribution for the succeeding period. The contributions due from countries and their corresponding voting powers are determined by the population of the countries according to the following scale:

POPULATION	NO. OF VOTES	NO. OF UNITS OF CONTRIBUTION
Less than 5 millions.....	1	1
Between 5 and 10 millions.....	2	2
Between 10 and 15 millions.....	3	3
Between 15 and 20 millions.....	4	5
Over 20 millions.....	5	8

Each state is at liberty to include in its population, according to the indication of its Government, the inhabitants of its colonies or protectorates. Self-governing dominions (South Africa, Australia, Canada, New Zealand) have separate voting power according to the above scale.

The contribution to be levied during the first period of the Convention shall not exceed 250 francs¹ per annum per unit.

In each country the organization adhering to the Council shall be responsible for the payment of the contribution.

¹ The value of the franc shall be that of the French currency.

20. The income of the Council derived from the contributions of the different countries shall be devoted to the expenses of the Bureau.

Funds derived from donations shall be used by the Council in accordance with the wishes expressed by the donors.

If any country withdraws from the Council, it resigns at the same time its rights to a share in the assets of the Council.

21. At the General Assembly votes upon scientific questions shall be decided by the majority of votes cast by the delegates present. In questions of an administrative character, and all questions not purely scientific, the vote shall be taken by countries; each country having the number of votes indicated in Article 19. In case of doubt as to the category to which a question belongs, the Chairman of the meeting shall decide. Votes taken in Committees shall be counted individually and not by countries. When there is an equal division of votes, the Chairman shall in all cases have a second or casting vote.

22. In questions of an administrative character, any country which is not represented by a delegate may forward its vote to the President by post, and such votes shall be counted if received before the vote is taken.

VIII—DURATION OF THE CONVENTION AND MODIFICATIONS

23. The present Convention shall come into force on the 1st of January, 1920, provided that at least three of the countries mentioned in Article 3 have signified their adhesion. It shall remain in force until the 31st of December, 1931, and shall then, with the assent of the adhering countries, be continued for a further period of 12 years.

24. No change shall be made in the terms of the Convention except with the approval of two-thirds of the votes of the adhering countries.

25. The French text of the Convention (of which the above is a translation) shall be considered to be the authoritative text.

At the final session of the Council the original Executive Committee was unanimously re-elected, to serve during the periods specified in the Constitution. The Committee consists of:

Professor Emile Picard, *President*
Professor Arthur Schuster, *General Secretary*
Professor George E. Hale, *Member*
Director Georges Lecoq, *Member*
Professor Vito Volterra, *Member*

To secure overlapping in the terms of service, and, therefore, continuity of administration, the first president and one member of the first Executive Committee are to hold office for three years only, but the General Secretary and the other two members are to serve during six years. Officers and members elected at the next triennial meeting, or at later meetings, are to serve during six years. All officers and members are re-eligible.

The duration of the present convention, as defined by the Constitution, is twelve years, to December 31, 1931. It may then be renewed for another period of twelve years, with the assent of the adhering countries.

Sixteen allied and associated countries are named in the Constitution as eligible to participate in the foundation of the Research Council. The five of these countries not represented by delegates may become members of the Council and of the affiliated unions by expressing their adhesion

to the terms of the Constitutions and by pledging their corresponding shares of financial support.

At the concluding session of the Conference, the Executive Committee was authorized to invite all leading neutral countries to enter into full membership relations with the Research Council and the affiliated unions.

In accordance with the terms of the Constitution, each adhering country is under obligations to contribute to the financial support of the Council. The relative amount of its contribution and the number of votes to which it is entitled are as defined by the following scale:

POPULATION OF COUNTRY	NUMBER OF VOTES	NO. OF FINANCIAL UNITS
Less than 5 million inhabitants.....	1	1
Between 5 and 10 million inhabitants...	2	2
Between 10 and 15 million inhabitants...	3	3
Between 15 and 20 million inhabitants...	4	5
More than 20 million inhabitants.....	5	8

The value of the financial unit for the Research Council itself during the first period of the convention (three years) may not exceed 250 francs per annum. That is, the annual obligation of the United States, in the first period, may not exceed 2000 francs annually. Funds received in this manner from the adhering countries shall be devoted to meeting the expenses of the administrative Bureau of the Council.

In advance of each triennial meeting the Executive Committee shall prepare a proposed financial budget for each of the three years following the meeting. A Finance Committee, nominated by the General Assembly of the Council, shall study this budget, and likewise audit the financial accounts for the preceding period. This Committee shall submit to the General Assembly separate and distinctive reports upon these two subjects. The Council in General Assembly shall determine the value of the contributive financial unit.

It was decided that the city of Brussels shall be the legal seat of the International Council of Research, and that the proceedings shall be governed by the laws of Belgium. It was likewise determined that the administrative seat of the Council—the Secretariat—shall be in the city where resides the General Secretary, in this instance in London.

The Executive Committee of the Council will submit the Constitution to the national academies, the national research councils, or the governments whose representatives took part in the Brussels Conference, for their approval. The International Research Council shall be considered as definitively constituted when three of the greater allied countries shall have expressed their approval. It is hoped that these approvals may be obtained not later than January 1, 1920.

One of the fundamental objects of the International Research Council is to encourage the creation of international unions representing, respectively, the chief divisions of science, in so far as such unions may be considered desirable and necessary. Simultaneously with the completion of the organization of the Research Council in Brussels three affiliated unions were definitively established, as follows:

The International Astronomical Union.

The International Geodetic and Geophysical Union.

The International Union of Pure and Applied Chemistry.

A Union of Biological Sciences and a Union of Scientific Radio-Telegraphy were organized, though somewhat less definitively; constitutions were formulated at Brussels, but it was decided that the plans proposed should be submitted to the different academies for their consideration.

Proposals were made and carefully considered for the establishing of unions of the mathematical sciences, of the physical sciences, of the geological sciences, of the geographical sciences, of bibliography, etc., but organic decisions were not reached. The expectation is that these unions will take definite form at or before the time of the next triennial meeting, in 1922. The mathematicians have decided, for example, to meet in Strasbourg in the year 1920, and the subject of an international union will at that time receive their consideration.

Engineering science and patent laws, both from the international point of view, were considered in Brussels by delegates representing these subjects.

A detailed report on the organization of the International Astronomical Union will have been presented to the National Research Council by the Secretary of the American Section.

The Secretary of the American Section of the Geodetic and Geophysical Union will have presented to the National Research Council a detailed report on the organization of the Union.

The Secretary of the American Section of the International Union of Pure and Applied Chemistry will have presented to the National Research Council a detailed report concerning the Union.

The International Union of Biological Sciences made progress in the direction of definitive organization. It is proposed that this Union shall be composed of six sections, as follows: General Biology, Physiology, Zoölogy, Botany, The Medical Sciences, Applied Biology.

The International Union of Radio-Telegraphy, which made progress toward definitive organization under the able leadership of General Ferrié, Inspector General of the Service of Military Telegraphy, Paris, proposes to concern itself chiefly with the study of radiometric phenomena as a pure science.

The activities of each union require that financial resources be available, as in the case of the International Research Council. It is proposed

that all the contributions be united for any one country in one appropriation, payable to the International Research Council, which shall apportion the funds in accordance with the relative needs. The wisdom of this policy can scarcely be questioned, in view of the intimate relationship of governments to the subject of appropriations for these purposes. A definite statement as to the total financial obligations of the United States cannot now be made. This will depend in part upon the list of countries which give their adherence to the proposals. The total number of contributory financial units remains unknown for the present. It is hoped that the number depending upon the allied and associated countries will be augmented by the adherence of many neutral countries. It should also be stated that the effective population of certain member countries, and, therefore, the amounts of their financial contributions, will depend upon whether they decide to include the inhabitants of their colonies and protectorates.

A resolution expressing the profound sympathy of the delegates for their colleagues in Russia was adopted unanimously at the closing session of the Conference.

Formal receptions were tendered to the delegates: by the city of Brussels, represented by the celebrated Burgomaster Adolf Max and the members of his Council, at the Hotel de Ville; by M. Hermignie, Minister of Sciences and Arts, and Madame Hermignie; and by M. Hymans, Minister of Foreign Affairs, and Madame Hymans. M. Lecointe, Director of the Belgian Royal Observatory at Uccle (a suburb of Brussels) and Madame Lecointe, received the astronomical, geodetic, and geophysical delegates in the director's residence. The members of the Observatory staff kindly provided opportunities for the delegates to see the more interesting and important features of the Observatory and its work. Much of the success of the Brussels Conference was due to the thoughtful and able services of Director Lecointe, Belgian member of the Executive Committee of the Research Council.

The Conference was memorable for the splendid spirit of coöperation and personal friendliness which prevailed universally. The discussions were conducted with sincere efforts to reach wise conclusions. The decisions were in general unanimous. These facts are happy indications that the evolution of the new organizations will follow along successful lines.

The chairman desires to express his appreciation of the uniformly helpful spirit in which every member of the American delegation joined in the solution of the many problems before the Conference.

Respectfully submitted,

W. W. CAMPBELL,

Chairman of the American Delegation to the International Research Council.
